

## TRAINING FOR SCIENTIFIC INJECTION MOLDING AND POLYMER OPTICS

**ABOUT EMPIRE PRECISION PLASTICS.** Based in Rochester, New York, Empire Precision Plastics specializes in precision molded parts. The company provides a variety of value-added services, from simple assembly of mating components to assembly of a finished product. With full automation, clean room controls, and ISO quality standards, Empire Precision offers less risk and better quality finished parts. One of the only injection molders with full in-house optics capabilities, the company has 50 employees and provides polymer optics molding, coating, and single point diamond turning (SPDT) capabilities.

**THE CHALLENGE.** Empire Precision Plastics was looking to better serve existing customers and continue offering value-added services. At the same time, the company was interested in diversifying into new markets, such as optics. To continue to provide complex components with a high level of precision and quality in a cost-effective manner, Empire Precision needed to increase its technical capability and processing methodology. The company reached out to High Tech Rochester (HTR), a NIST MEP affiliate, for assistance in training Empire Precision employees on the techniques of Scientific Injection Molding and Polymer Optics Processing.

**MEP CENTER'S ROLE.** HTR engaged its partner, Kevin Levesque Consulting, to develop a training program for Empire Precision. The training focused on five key areas relating to Scientific Injection Molding and Polymer Optics Processing: robust process development, controlled production processes, effective machine-to-machine translation, capable troubleshooting methods, and distinctions between general and polymer optics molding. The program included 80 hours of instruction and training, both on the production floor and in the classroom setting. Empire Precision employees developed a better understanding of polymer optics processing, enhancing the company's ability to compete in the new market. In addition, the company improved productivity and increased on-time deliveries through its participation in the program.

"Scientific molding has allowed us to better serve our customers with better planning and process documentation, leading to faster, more repeatable quality."

-Keith Bradt, Business Development Manager

## RESULTS



80 hours of instruction and training



Better development of the Polymer Optics market, improved competitiveness



More than **10%** increase in on-time deliveries

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